

# **Petronila Creek Dissolved Solids TMDL Stakeholder Committee Meeting**

Final Draft Meeting Summary – **December 09, 2003**

## **Attendees:**

Rocky Freund, Nueces River Authority  
Kevin Wagner, TSSWCB  
Ken Herrihard, Continental Resources, Inc.  
Terry Clenny, Continental Resources, Inc.  
Ken Faughn, Robstown Area Development Commission  
John Freeman, Jr., NRCS  
Andy Garza

## **Presenters:**

Kerry Niemann, Project Manager, TCEQ  
Earlene Lambeth, Facilitator, TCEQ  
Maurice Akech, Data Manager, EA Engineering Science & Technology, Inc.  
Raed M. EL-Farhan, Ph.D., Modeler, The Louis Berger Group, Inc.

## **CALL TO ORDER/WELCOME/INTRODUCTIONS:**

Mr. Kerry Niemann (TCEQ) opened the second meeting for the Petronila Creek TMDL project meeting with a stakeholders committee roll call. Introductions, distribution of handouts, and a review of the evenings' agenda followed.

The purpose of the meeting was to inform the stakeholders on the status of work being performed on the project thus far. The evenings' meeting agenda included a presentation on the TMDL stakeholder process. Technical presentations from EA Engineering, Science & Technology, Inc. and The Louis Berger Group followed.

Public participation is very important and ensures that State government considers local perspectives and suggestions in its decisions. The Petronila Creek(s) project is a joint effort among the State and local stakeholders with a balanced representation. The Petronila Creek Stakeholder Committee has received formal TCEQ approval for its' creation and committee members. Formal ground rules for the committee will need to be created and approved by the stakeholder committee in a future meeting.

Items Mr. Niemann discussed focused on three areas of stakeholder participation, they were as follows, involvement, consult, and collaborative.

## **PROJECT OVERVIEW**

Mr. Maurice Akech representing EA Engineering Science & Technology, Inc., the prime contractor for this project, focused the discussion on the work that has been done on the Petronila Creek. Mr. Akech began with an introduction to the 303 (d) listing and process. He explained that Petronila Creek does not meet water quality standards, is

designated as “impaired” and was placed on the CWA Section 303(d) list. All 303(d) listed water bodies are required to have TMDLs that will achieve water quality standards. Therefore a study is being performed on Petronila Creek, segment 2204. The segment is listed for chloride, sulfate, and total dissolved solids. Accedence’s of 1,500 mg/L, 500 mg/L, and 4,000 mg/L respectively. Mr. Akech reported that chloride in high concentrations have been known and proven to have adverse effects on water taste, cause health problems in humans, and deteriorate plumbing. He also reported sulfate in high concentrations can cause taste and odor problems in drinking water, and that TDS can be toxic to freshwater aquatic life.

Mr. Akech continued to report that a Monitoring Plan and Monitoring Schedule has been approved and that data collection and analysis is currently under way. The collected data will provide sufficient data for TMDL analysis. Also reported was a Sampling and Analysis Plan (SAP) that was finalized in October 2002 for Petronila Creek. In October 2002 a Quality Assurance Project Plan (QAPP), which established the procedures for data collection and analysis was also approved.

Sampling and monitoring began in January 2003 which included chemical monitoring (under range of stream flows), streamflow monitoring, wet weather monitoring (runoff to segment) and intensive monitoring (point source inputs) such as permitted dischargers to see if they had an impact on the water quality of Petronila Creek. Mr. Akech concluded his presentation with photographs of water quality monitoring sampling at the different stations and highlights of a brief data point presentation of sampling results.

Mr. Raed M. EL-Farhan, Ph.D. representing The Louis Berger Group, Inc. began his presentation explaining his objective. He began to explain what a TMDL was, why Petronila Creek needs one, which segment, etc.

He reported that a TMDL was a requirement under the Section 303(d) of the Clean Water Act. The Clean Water Act requires states to periodically list impaired waters and therefore develop TMDL’s for the listed impaired waters.

A TMDL (Total Maximum Daily Load) establishes the maximum amount of a pollutant that a water body can assimilate and still meet Water Quality Standards it also allocates that load among pollution contributors. Mr. EL-Farhan explained that TMDLs are a tool for implementing State water quality standards. They are based on the relationship between pollution sources and in-stream water quality conditions. He went on to explain that TMDL’s must addressed or established for subsequent pollutants’.

Mr. EL-Farhan explained that a TMDL is calculated by the sum of the allowed pollutant loads for point sources, non-point sources, providing for a margin of safety for protection and a projection for growth. He explained that a TMDL is a formula of :  $TMDL = Point\ Sources + Nonpoint\ Sources + Margin\ of\ Safety$ .

The listed Petronila Creek segment is approximately 44 miles in length and extends from the confluence of Aqua Dulce and Banquete Creeks to the downstream limit of a point

0.6 miles upstream of a private road crossing near the Laureles Ranch in Kleberg County. He reported that the watershed is approximately 396,000 acres and land use in the watershed is predominantly agricultural - 83% agricultural and 15% rangeland.

Mr. EL-Farhan presented a table that provided information of each station number, where it was located in the 44 mile creek segment, the period or date the sample was taken, the number of samples taken, numbers of violations or exceedances, a percent of time the sample exceeded the standard, and provided this summary for each of the conditions such as chloride, TDS, and sulfate.

He explained that one of the most difficult but important steps for a stakeholder to do, is to look at where each of these violations occurred (in the table and watershed) and see if they could establish a link in what might be causing the violation or exceedance. He was speaking to the stakeholders and asking them to give input into the project, to think about the watershed they lived in, they knew it the best. He asked for their input and information on a possible link to the pollutant sources. He asked the stakeholders to look into the sources in the watershed, whether they were manmade or natural, to examine what the data was showing in the water quality of the stream.

A point made by Mr. EL-Farhan was that after this information is gathered, analyzed, and a report was made, the plan would need to be approved by the EPA. He explained a Monitoring Plan and a stakeholder driven Implementation Plan.

Some of the data that will be considered would be hydrographic data, watershed activities/use data and information related to pollutant production, point sources and direct discharge data and information, environmental monitoring data that could be gathered from such sources as any special studies, colleges, etc. Other items to consider is stream flow and weather information that could be gathered from TCEQ or USGS. One of the sources for the watershed physiographic data could be the USGS. He asked again, for stakeholder participation and information. He added, that all potential sources of characterization need to be considered, such as brine pits, leaking oil wells, brine injection wells, brush or salt deposits.

He ended his presentation with a slide presentation of pictures he had taken during the tour of the watershed.

Stakeholders will be kept informed, data will be made available through the TCEQ web site, and another meeting will be scheduled in the spring.